

Emerging Market Outlooks 2010

BACKGROUND

Context appreciates that strategic discussions on the future of plant biotechnology are more robust when rooted in conversations with growers. Grower preferences and prospects on biotechnology are most revealing when placed in the context of regional crop production trends and productivity differences.

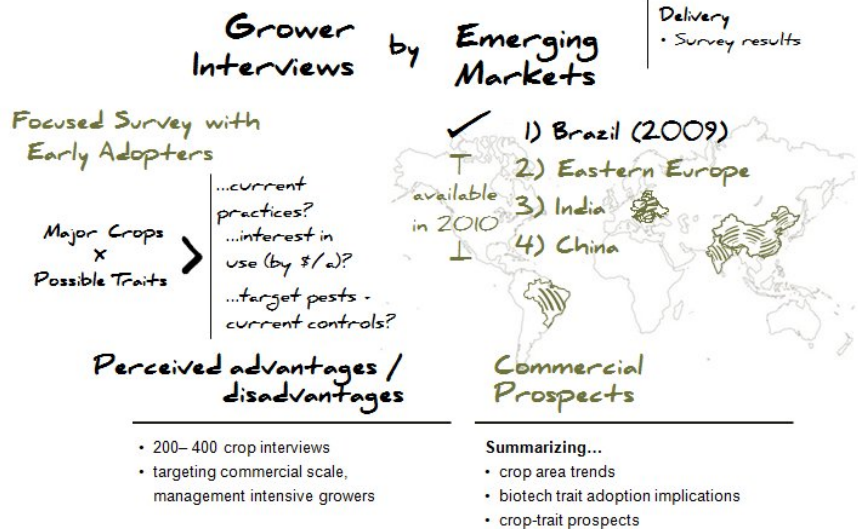
The 2009 edition of **BTC** dedicated **Part 3** to a 'deep-dive' focus on describing biotech trait trends in a key emerging market, Brazil. In 2010, Context offers similar 'deep dives' in China, India, and Eastern Europe.

Long delayed, recent government approvals signal an opportunity to translate pent up demand for first generation traits (insect and herbicide tolerance) into rapid adoption within emerging markets, likely paralleling penetration realized in the US.

As for second generation traits, prospects are markedly different. Attraction of novel traits differ, corresponding to local environments and resulting needs for traits offering fungal resistance and stress tolerance. Pricing implications and value opportunity will vary accordingly.

2010 EMO: TODAY'S KEY DATA; FUTURE IMPACTS

Effectively conducting farmer interviews in emerging markets poses special challenges. The commonly used telephone survey approach is often too problematic in practice, so Context's methodology is to engage a targeted segment of commercial, management intensive growers in



face-to-face, in-depth discussions with a team of interviewers. In result, the sample set, although more limited in number, provides more reliable, thoughtful responses.

Context deliberately designs its survey instrument to streamline interviews, accounting for (i) pre-populating possible traits in scope, (ii) use of multiple choice questions, frequently using variants of the 5-level Likert scale, and (iii) translating questionnaires into local languages.

Context seeks to identify priority concerns of commercial farmers and assess how these affect the extent of potential demand for an array of potential biotech traits which are in development.

The farm survey questions focus on: (i) traits already commercialized, (ii) those likely to be launched within the 2020 time period (e.g. broad-spectrum Bt, drought tolerance, nitrogen-use-efficiency products) and, lastly, (iii) thoughts on important trait needs for the longer-term (e.g. soy rust-tolerance and virus resistance).

BRAZIL EMO 2009 CROP-TRAIT COVERAGE

Soybean Traits

- » Herbicide tolerance
Glyphosate, Glufosinate + dicamba, Glyphosate + sulfonylurea, ...
- » Insect resistance
Caterpillar, Aphid, ...
- » Fungal resistance
- » Nematode resistance
- » Stress tolerance
Heat, Water, ...

Corn Traits

- » Herbicide tolerance
IMI, Glyphosate, Glyphosate + ALS, Glufosinate, Glyphosate + ALS + glufosinate, ...
- » Insect resistance
Lepidoptera, Lepidoptera + cutworm, Coleoptera, Coleoptera + Lepidoptera, Coleoptera + Lepidoptera + Cutworm, ...
- » Fungal resistance
- » Water use efficiency
- » Reduced nitrogen utilization

Cotton Traits

- » Insect tolerance
- » Herbicide resistance
Glyphosate, Glufosinate, Glyphosate + dicamba, Glufosinate + dicamba, ...
- » Fungal resistance
- » Water use efficiency

ABOUT CONTEXT'S EMO APPROACH

As with Context's Brazil EMO 2009, direct farmer interviews across key geographies provide unique relevance. In 1997, Context studied attitudes of North American corn, soybean and cotton growers to the actual or pending launch of the first generation of plant biotechnology trait innovations. As advancement of biotechnology trait innovations are expected soon in China, India and Eastern Europe, Context will present new data from farmer interviews and surveys from across respective emerging markets. Critical comparisons and contrasts were explored between the 1997 North America and the 2009 Brazil EMO, many of which have relevance in contrasting other emerging markets.

Despite parallels linking the USA and other emerging markets at the biotech launch stage, there are major differences:

- Biotech crops are now known entities.
- Many farmers have already planted seed with biotech traits.
- Pent-up demand may result in very rapid adoption.
- First generation biotech traits will succeed to the extent that they are *appropriate* for respective environments.
- Each market's agro-environmental diversity cautions against generalizations on the market potential for second generation traits.
- Trait value capture and valuation are bigger issues than they were in the USA.

The special factors noted above make a survey of respective emerging markets' grower attitudes to biotechnology traits at this stage particularly insightful.

ORDER FORM

The purchase price of **Context's Emerging Market Outlook** is \$19,500 USD for each report.

Now Available	----Available in late April 2010 ----		
<input type="checkbox"/> Brazil \$19,500	<input type="checkbox"/> China \$19,500	<input type="checkbox"/> India \$19,500	<input type="checkbox"/> Eastern Europe \$19,500

To subscribe to Context's Emerging Market study, please read and agree to the following statement:

To protect our investment in this report and that of other subscribers, we agree to keep confidential study results within our company. We may make this report available to any subsidiary company in which we hold more than 50% interest or to a parent company that holds more than 50% interest in our firm. We understand that we may use or disclose any information in this report that is public knowledge or that was in our possession before receipt of the study, or that comes to us from third parties independently of this report.

Company _____

Name / Title _____

Signature _____

Address _____

Date _____

E-mail address _____

Please sign this agreement and return to:
The Context Network at the address noted below.



CONTEXT

©2009 Context Network